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10/005,862	11/08/2001	L. Mark Ernest	FIS9-2000-0304	2036

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EXAMINER

VAN DOREN, BETH

ART UNIT	PAPER NUMBER
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3623

DATE MAILED: 05/06/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/005,862

Applicant(s)

ERNEST ET AL.

Examiner

Beth Van Doren

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

1. Prosecution has been re-opened in response to the Appeal Brief filed on January 20, 2004. Accordingly, the following is a Non-Final Office Action. Claims 1-16 are pending in this application.

Response to Arguments

2. Applicant's arguments filed 01/20/04, with respect to the rejections of claims 1-16 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground of rejection is made in view of *Adriaans et al.* (U.S. 6,311,175). See rejections that follow.

Claim Rejections - 35 USC § 101

3. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

4. Claims 1-16 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

The basis of this rejection is set forth in a two-prong test of:

- (1) whether the invention is within the technological arts; and
- (2) whether the invention produces a useful, concrete, and tangible result.

For a claimed invention to be statutory, the claimed invention must be within the technological arts. Mere ideas in the abstract that do not apply, involve, use, or advance the technological arts fail to promote the "progress of science and the useful arts" (i.e. the physical sciences as opposed to social sciences, for example) and therefore are found to be non-statutory

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subject matter. For a process claim to pass muster, the recited process must somehow apply, involve, use, or advance the technological arts.

In the present case, the claims only recite an abstract idea. In claim 1, the recited steps of collecting usage data for providing a service at a component, reporting the usage data, constructing a valuation function, correlating the service with a component, and determining values based on the correlation does not explicitly apply, involve, use, or advance the technological arts since all of the recited steps can be performed without the use of any technology (i.e. there is no specific recitation of what is performing the collecting, reporting, constructing, etc. of claim 1 and therefore it could be implemented without the use of technology). Therefore, since the steps of claim 1 only constitute an abstract idea of how to value and manage the components, and since the steps of claim 1 do not explicitly apply, involve, use, or advance a technological art, it is respectfully submitted that the claimed invention is directed towards non-statutory subject matter. Furthermore, claims 2-16 depend on claim 1 and contain the same § 101 issues as claim 1.

Additionally, for a claimed invention to be statutory, the claimed invention must also produce a useful, concrete, and tangible result. In the present case, the claimed invention is not concrete because different users would implement the process and produce different outcomes, making the invention not repeatable. The claimed invention constructs a valuation function and uses usage data to determine values. Different users would use different valuation functions and determine different values based on the varying value function. Therefore, it is respectfully submitted that the invention, as claimed, is not concrete.

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Since the claimed invention does not produce a useful, concrete, and tangible result and since the claimed invention is not within the technological arts, as explained above, claims 1-16 are deemed to be directed towards non-statutory subject matter.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1, 2, 10, 14, and 16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

6. As per claim 1, claim 1 is directed towards managing an integrated IT system having a plurality of components. The claim recites the steps of “reporting the usage data of each component for each service” “constructing a valuation function for valuing each service”, and “determining from said correlated services and components a value of each component and a value of said IT system”. It is unclear based on these limitations what the applicant regards as his invention because these limitations fail to identify what is occurring in the process. First, it is unclear as to who or what the usage data is being reported. Second, it is unclear as to how and/or when a valuation function is being constructed and what valuation function is specifically being used. Third, it is unclear how values for components and a value for an IT system is determined based on correlations. Therefore, based on these limitations, it is unclear as to what is distinctly occurring by the Applicant’s invention. Clarification and correction is required.

7. As per claim 2, claim 2 recites “a process wherein said value is determined from usage statistics”. It is unclear as to what value of claim 1 is being referred to by this limitation. Claim

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1 recites “determining from said correlated services and components a value of each component and a value of said IT system”. For examination purposes, the limitation of claim 2 has been construed as --a process wherein said value of each component is determined from usage statistics--. Clarification and correction is required.

8. As per claim 10, claim 10 recites “a system for managing an IT infrastructure [...], said system comprising: an agent associated with each of the components, said agent identifying each transaction of a service performed by said IT infrastructure; and an information collection system for collecting from said agents transaction information relating to each service performed, said system determined from said transaction information which of said components are involved in said transaction”. It is unclear based on the recitation of this claim as to what system is determined from the transaction information and how this determination occurs. Based on the preamble and the limitations of the claim, the claim is directed toward a system for managing an IT infrastructure by using agents at each component to identify transactions and an information system that collects this transaction information from the agents. Therefore, it is unclear how determining a system is related to the management of a IT infrastructure. For examination purposes, the limitation has been construed as --said system determining from said transaction information which of said components are involved in said transaction--.

Clarification and correction is required.

9. As per claim 14, claim 14 recites “a second table identifying the total value of each service”. There is insufficient antecedent basis for this limitation in the claim. For examination purposes, the limitations has been construed as --a second table identifying a total value of each service--. Correction is required.

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10. As per claim 16, claim 16 recites "a valuation of each component based on its participation". It is unclear as to what the term "its" is specifically referring. For examination purposes, the limitations has been construed as --a valuation of each component based on each said component's participation--. Correction is required.

Claim Rejections - 35 USC § 102

11. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

12. Claims 1-16 are rejected under 35 U.S.C. 102(a) and (e) as being anticipated by Adriaans et al. (U.S. 6,311,175).

13. As per claim 1, Adriaans et al. teaches a process for managing an integrated information technology (IT) system having a plurality of components and providing a plurality of services, the process comprising the steps of:

collecting, at each of the components, usage data indicating an amount of use each component receives in providing each of the services (See at least the abstract, column 5, lines 14-40, column 6, lines 15-35, column 8, lines 15-40, column 9, lines 15-37, and column 11, lines 40-65, wherein monitors of the components collect usage data when providing a service);

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reporting the usage data of each component for each service (See at least column 3, lines 30-42, column 5, lines 14-40, and column 8, lines 15-40, wherein the usage data is reported by the monitors to the database);

constructing a valuation function for valuing each service (See at least the abstract, figure 4, column 5, lines 30-50, column 6, lines 15-35, column 8, lines 44-60, column 9, lines 45-67, and column 11, lines 40-65, wherein a valuation function is constructed for valuing each service based on SLA agreements and thresholds);

correlating each service with each component used to provide said service (See at least figure 4, column 4, lines 25-40, column 5, lines 30-50, column 6, lines 55-65, column 8, lines 44-60, column 9, lines 45-67, and column 11, lines 29-40, which discusses correlations between components and services); and

determining from said correlated services and components a value of each component and a value of said IT system (See at least the abstract, figure 4, column 5, lines 30-50, column 6, lines 55-65, column 8, lines 44-60, column 9, lines 45-67, column 10, lines 15-25 and 35-50, and column 11, lines 40-65, wherein a value for a component is determined by valuing the stored data based on the SLAs and a value for the overall system is determined based on each component, the SLAs).

14. As per claim 2, Adriaans et al. discloses a process wherein said value is determined from usage statistics accumulated at each component (See at least the abstract, column 5, lines 14-40, column 6, lines 15-35, column 8, lines 15-40, column 9, lines 15-37, and column 11, lines 40-65, wherein the value is determined based on the usage information gathered at the components).

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15. As per claim 3, Adriaans et al. teaches a process further comprising the step of evaluating a worth of each component based on multiple uses of said component in multiple services performed by said IT system (See at least figures 4 and 6, column 1, lines 15-40, column 2, lines 50-67, column 3, lines 1-15, column 4, lines 25-40, and column 10, lines 40-65, which discuss the worth of a component based on its uses in the system).

16. As per claim 4, Adriaans et al. teaches a process further comprising the step of constructing a relationship table identifying the components used in providing each service, wherein a configuration management process is fed by a change management process in order to maintain the relationship table as changes to said IT system are made (See at least column 3, lines 30-46 and 54-60, column 4, lines 30-40, column 5, lines 14-40, column 6, lines 15-35, column 8, lines 15-40, column 9, lines 15-37, and column 10, lines 14-28, wherein a relationship table is constructed which identifies components used in a service. A configuration management process is linked to a change process to keep a database table that reflects the current IT System).

17. As per claim 5, Adriaans et al. discloses a process wherein valuing a given service comprises determining a value for each transaction conducted in providing that service (See at least the abstract, figure 4, column 5, lines 30-50, column 6, lines 15-35, column 8, lines 44-60, column 9, lines 45-67, and column 11, lines 40-65, wherein a valuing occurs by determining a value for each operation that occurs in providing the service of the system).

18. As per claim 6, Adriaans et al. teaches a process further comprising the step of providing for each component an agent for accumulating transaction data regarding services provided using that component (See at least the abstract, column 5, lines 14-40, column 6, lines 15-35, column 8, lines 15-40, column 9, lines 15-37, and column 11, lines 40-65, which discloses monitors at

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each component that serve as an agent for collecting operational data and providing that data to the database for further evaluation).

19. As per claim 7, Adriaans et al. discloses a process wherein said value is determined in said determining step in accordance with the transaction (See at least the abstract, figure 4, column 5, lines 30-50, column 6, lines 15-35, column 8, lines 44-60, column 9, lines 45-67, and column 11, lines 40-65, wherein a valuing occurs by determining a value for each operation that occurs in providing the service of the system).

20. As per claim 8, Adriaans et al. discloses a process wherein said transaction data includes the type of transaction and a value associated therewith (See at least the abstract, column 5, lines 14-40, column 6, lines 15-35, column 8, lines 15-40, column 9, lines 15-37 and 55-67, and column 11, lines 40-65, wherein the transaction data includes the type of operation and a value associated with this operation).

21. As per claim 9, Adriaans et al. discloses a process further comprising the step of reporting the transaction data (See at least column 3, lines 30-40, column 5, lines 14-40, and column 8, lines 15-40, wherein the data is reported by the monitors to the database).

22. As per claim 10, Adriaans et al. teaches a system for managing an IT infrastructure having a plurality of components for providing a plurality of services, said system comprising:

an agent associated with each of the components, said agent identifying each transaction of a service performed by said IT infrastructure (See at least the abstract, column 5, lines 14-40, column 6, lines 15-35, column 8, lines 15-40, column 9, lines 15-37, and column 11, lines 40-65, wherein monitors act as agents for each of the components and collect operational data for providing a service); and

an information collection system for collecting from said agents transaction information relating to each service performed, said system determining from said transaction information which of said components are involved in said transaction (See at least the abstract, figure 4, column 1, lines 15-40, column 2, lines 50-67, column 3, lines 1-15, column 4, lines 25-40, column 5, lines 14-40, column 6, lines 15-35, column 8, lines 15-40, column 9, lines 15-37, and column 11, lines 40-65, wherein monitors collect operational data for providing a service by the IT system. A system meeting a SLA is valued and determined using the collected data).

23. As per claim 11, Adriaans et al. discloses a system wherein said information collection system provides a report which identifies for each service the value of said service and the value of the components used in providing said service (See at least figures 3, 4, and 6, column 1, lines 15-40, column 3, lines 1-10 and 30-50, column 4, lines 30-50, column 5, lines 30-50, column 6, lines 55-65, column 9, lines 45-67, column 10, lines 3-25, and column 11, lines 30-60, wherein a report is made to the system identifying a value for the evaluation of the health of the system and a value for each component. This information is used to update the system).

24. As per claim 12, Adriaans et al. teaches a system for managing an IT infrastructure comprising:

an information technology process model which defines a plurality of groups of processes defining information flow for an integrated management model defining the IT infrastructure for a plurality of IT services (See at least figure 3, column 1, lines 15-40, column 3, lines 1-10 and 30-50, column 4, lines 30-50, column 10, lines 3-25, and column 11, lines 30-60, wherein a process model is defined with a plurality of groups of processes);

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a plurality of agents for monitoring each component of said IT infrastructure, said agents collecting transaction information identifying each transaction by service type (See at least the abstract, column 5, lines 14-40, column 6, lines 15-35, column 8, lines 15-40, column 9, lines 15-37, and column 11, lines 40-65, wherein monitors act as agents for each of the components and collect operational data for providing a service);

said agents reporting over said IT infrastructure transaction information to said information process model whereby said information is used by said model (See at least column 3, lines 30-42, column 5, lines 14-40, column 8, lines 15-40, column 10, lines 3-25, and column 11, lines 30-60, wherein the usage data is reported by the monitors over the infrastructure and the information is used to update the model).

25. As per claim 13, Adriaans et al. teaches a system for managing an IT infrastructure wherein said information is processed to provide a table that identifies for each component the service in which the component participates (See at least column 3, lines 30-46 and 54-60, column 4, lines 30-40, column 5, lines 14-40, column 6, lines 15-35, column 8, lines 15-40, column 9, lines 15-37, and column 10, lines 14-28, wherein a relationship table is constructed).

26. As per claim 14, Adriaans et al. discloses a system for managing an IT infrastructure wherein said information from said agents are processed to derive a second table identifying a total value of each service based on the information (See at least column 3, lines 30-46 and 54-60, column 4, lines 30-40, column 5, lines 14-40, column 6, lines 15-35, column 8, lines 15-40, column 9, lines 15-37, and column 10, lines 14-28, wherein a second, updated table is derived that identifies a total value for each service based on the information).

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27. As per claim 15, Adriaans teaches a system for managing an IT infrastructure wherein said total value is determined for at least some of said services based on the number of transactions performed by said services (See at least figures 4 and 6, column 10, lines 40-67, column 11, lines 40-65, and column 12, lines 1-25, wherein the total value is determined by the number of operations performed).

28. As per claim 16, Adriaans et al. discloses a system for managing an IT infrastructure wherein said first table includes a valuation of each component based on each said component's participation in each of said services (See at least column 3, lines 30-46 and 54-60, column 4, lines 30-40, column 5, lines 14-40, column 6, lines 15-35, column 8, lines 15-40, column 9, lines 37-67, column 10, lines 14-28, and column 11, lines 30-64, wherein a table includes a valuation of each component based on the component's role in the service).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Adriaans et al. (U.S. 6,393,387) teaches model mining information about components of an IT system that produces a service.

Kuiper (U.S. 2003/0171945) discloses a computer system that couples information about business processes/functions to software components.

Hartsell et al. (U.S. 2002/0049608) teaches an information management environment for business services.

Vellante et al. (U.S. 2002/0178095) discloses assessing and quantifying business value for an IT application that is subject to change.

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Vellante et al. (U.S. 2002/0069102) teaches determining a net value for an IT application.

Kuiper (EP 1 143 361 A1) discloses a computer system that couples information about business processes/functions to software components.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Beth Van Doren whose telephone number is (703) 305-3882.

The examiner can normally be reached on M-F, 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tariq Hafiz can be reached on (703) 305-9643. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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April 29, 2004


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